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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/663,332	09/16/2003	Matthias Finkbeiner	442-195	3785
23869	7590	04/07/2005	EXAMINER	
HOFFMANN & BARON, LLP 6900 JERICHO TURNPIKE SYOSSET, NY 11791			MULLINS, BURTON S	
			ART UNIT	PAPER NUMBER
			2834	

DATE MAILED: 04/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 10/663,332	<b>Applicant(s)</b> FINKBEINER, MATTHIAS	
	<b>Examiner</b> Burton S. Mullins	<b>Art Unit</b> 2834	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 9/16/03 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Information Disclosure Statement***

2. The information disclosure statement (IDS) submitted on 16 September 2003 has been considered by the examiner.

### ***Specification***

3. The disclosure is objected to because of the following informalities: Numerous grammar and syntax errors occur throughout the specification, for example at paragraphs 1 and 9 (“in circuit”, “extremely simply”), paragraph 3 (“same”), paragraph 31 (“in the form of as a component”) and paragraph 44 (“always the same sort od individual”). Appropriate correction is required.

### ***Claim Objections***

4. Claims 1, 3 and 13-15 are objected to because of the following informalities:

In claim 1, line 8, change “is” to ---are---.

In claim 3, line 7, delete “are”.

In claim 13, line 8, insert ---so--- or ---such--- before “that the board strip”.

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In claims 14 and 15, delete “able to moved” and replace with ---movable--- and change “comprises” to ---comprising---.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

5. Claims 1-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claims 1 and 13, recitation “adapted more especially for an electrodynamic direct linear drive” is indefinite because it is not clear whether the phrase “adapted more especially for” excludes all drives besides direct linear drives or includes other types of electrodynamic drives, e.g., non-linear or rotary drives. For purposes of examination, it will be presumed the claims are directed exclusively towards linear drives.

Furthermore, recitations “simultaneous mechanical attachment” (claim 1) and “simultaneous making of contact” (claim 13) are vague and indefinite. It is not clear if “simultaneous” refers to a method of assembly step. Since it does not appear to limit the apparatus or method, for purpose of examination the word “simultaneous” has been given no patentable weight.

In claim 3, “placed in circuit” is vague and indefinite.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-5, 11 and 13-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Sakagami et al. (US 5,134,324). Sakagami teaches a coil system for an electrodynamic direct linear drive, comprising a coil arrangement, which bears a plurality of individual coils 11 arranged coaxially in sequence (Figs.2&4), a board strip 14 extending along the coil arrangement (Fig.2), such board strip having an electrical circuit with predetermined contact making points (not numbered, Fig.2), with which the wire ends (not numbered, Figs.2&5) of each individual coil 11 are electrically contacted with a simultaneous mechanical attachment on the board strip (c.2, lines 49-51).

Regarding claim 2, the board strip 14 will inherently be either rigid or flexible.

Regarding claim 3, the board strip 14 possesses holes (not numbered) arranged in sequence in the longitudinal direction (Fig.2), into which ends of coils 11 are inserted. The connections inherently require soldering.

Regarding claim 4, the coils 11 comprise groups of coils 11a/11b, or plural coil groups formed by individual coils.

Regarding claim 5, as seen in Figs.1&2, the board strip 14 lies against an outer periphery of the coils 11.

Regarding claim 11, the coils 11 are identical with each other (Fig.2).

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Regarding method claim 13, the coils 11 are pre-fabricated since they are described as being lined to a length of the guide rail 1 and surrounded and sealed by fixing members 12 and 13 (c.2, lines 40-45).

Regarding claims 14-15, the coils 11 and board strip 14 form part of the stator 10, while the output drive part comprises axially sequentially placed permanent magnets 22 (Fig.6).

Regarding claim 16, the coils and magnets are co-axial (Figs.1&6) in that the coils and magnets are both aligned on the axis of motion.

8. Claims 1-5 and 11-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Yagoto et al. (US 6,008,552). Yagoto teaches a coil system for an electrodynamic direct linear drive, comprising a coil arrangement 21 (Figs.1&28), which bears a plurality of individual U/V/W coils 21d arranged coaxially in sequence (Fig.1), a board strip Bd (Fig.28) extending along the coil arrangement, such board strip having an electrical circuit 51/52 and Lc (c.24, lines 61+; Fig.28) with predetermined contact making points at Lc (Fig.28), with which the wire ends 211 (Fig.17) of each individual coil 21 is electrically contacted with a simultaneous mechanical attachment on the board strip (c.19, lines 14-17).

Regarding claim 2, the board strip Bd will inherently be either rigid or flexible.

Regarding claim 3, the board strip Bd possesses holes (not numbered) arranged in sequence in the longitudinal direction (Fig.28), into which ends of coils 211 are inserted. The connections inherently require soldering.

Regarding claim 4, the coils 21 comprise groups of coils U/V/W, or plural coil groups formed by individual coils U/V/W.

Regarding claim 5, the board strip Bd lies at the outer periphery of the coils (Fig.28).

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Regarding claims 11-12, the coils U/V/W are identical to and touch each other.

Regarding claims 14-15, the output drive part comprises the coil arrangement 21, with the other (stator) component comprising shaft member 10' with axially sequentially placed permanent magnets 11' and 12' (Fig.1).

Regarding claim 16, the magnet system 10'/11'/12' is coaxial with the coil arrangement 21 (Figs.1&28).

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over any one of Sakagami or Yagoto, further in view of Ukaji (US 6,847,132). Neither Sakagami nor Yagoto teach enamel on the coils.

Ukaji teaches a linear motor with copper coils 1 covered, i.e. bonded, in an enamel for insulation (c.7, line 64-c.8, line 7).

It would have been obvious to modify Sakagami or Yagoto and provide a coil with bonding enamel per Ukaji for insulating the coil.

***Allowable Subject Matter***

11. Claims 6-8 and 10 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims. Regarding claim 6, the prior art does not teach or suggest “a magnetic return part coaxial to the coil arrangement which possesses a longitudinally extending recess in which the board strip extends.” Yagoto’s circuit board Bd (Fig.28) along with magnetic frame 22d forms an enclosure surrounding the coils; however, the board Bd cannot be considered to extend in a “recess”. Regarding claim 10, Yagoto’s magnetic yoke 22’ (Fig.1) is not “electrically non-conductive.” Further, it extends about the coil arrangement LU1-LW2 (Fig.16), not through the coil arrangement.

***Conclusion***

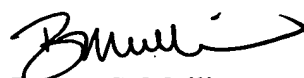
12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Burton S. Mullins whose telephone number is 571-272-2029. The examiner can normally be reached on Monday-Friday, 9 am to 5 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Darren Schuberg can be reached on 571-272-2044. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Burton S. Mullins  
Primary Examiner  
Art Unit 2834

bsm  
05 April 2005